NIEHS fellows honored with 2014 FARE awards

By Sheila Yong

NIEHS continued its tradition of research excellence, this summer, as 19 of its fellows received the 2014 Fellows Award for Research Excellence (FARE). Although NIEHS is in the midrange in terms of size and budget among the NIH institutes and centers (ICs), it ranked in the top 26 percent in the number of fellows receiving FARE awards.

"The continued success of our trainees in receiving these awards is a testament to the high-quality training environment fostered at the Institute. The collective effort to create and sustain an outstanding environment is reflected in the persistent influx of exceptional fellows that comprise the trainee community," said Tammy Collins, Ph.D., director of the NIEHS Office of Fellows' Career Development.

IRTA fellow Christopher Campos, Ph.D., "Transient barrier disruption increases transport function at the blood-brain barrier," mentor David Miller, Ph.D. (Photo courtesy of Steve McCaw)

Visiting fellow Senthilkumar Cinghu, Ph.D., "Meta-analysis identifies key determinants of embryonic stem cell identity and homeostasis," mentor Raja Jothi, Ph.D. (Photo courtesy of Steve McCaw)

Cash award promotes professional development

The 2014 FARE award program is sponsored by the NIH Fellows Committee, Scientific Directors, and Office of Intramural Training and Education, and is funded by the Scientific Directors. Earlier this year, fellows submitted their research abstracts, *(http://www.niehs.nih.govimages/file426507.pdf)* (184KB) which were then ranked by study sections comprised of previous FARE awardees and NIH senior scientists. Abstracts in the top 25 percent in each study section were selected, based on scientific merit, originality, experimental design, and overall quality and presentation.

Winners of the FARE awards will each receive a $1,000 stipend to attend a scientific meeting of their choice, at which they will present their research. They are also invited to present a poster at the annual NIH Research Festival and attend the FARE awards ceremony held on the NIH Bethesda, Md., campus in October, as well as to judge the following year's FARE competition. Furthermore, the recipients will be recognized at the NIEHS Director's Awards ceremony.

2014 awards set new records

Of the 19 awardees, six came from the Laboratory of Toxicology and Pharmacology (LTP), setting a new record for a single laboratory or branch at NIEHS. The LTP winners are Christopher Campos, Ph.D.; Neal Englert, Ph.D.; Ngome Makia, Ph.D.; Stela Palii, Ph.D.; Lindsay Smith, Ph.D.; and Qingshan Wang, M.D.

Smith was the most impressive, having won the award for the third time. "It is wonderful to be recognized for all my hard work, especially by such a diverse judging panel," she commented. Now an Intramural Research Training Award (IRTA) fellow mentored by David Miller, Ph.D., Smith won her first FARE award as a predoctoral fellow, mentored by John Cidlowski, Ph.D., from the Laboratory of Signal Transduction (LST).

Five other FARE awardees were second-time winners:

- Wang, from the Laboratory of Toxicology and Pharmacology, mentored by Jau-Shyong

(John) Hong, Ph.D.
- Huaixin Dang, Ph.D., Kristin Lichti-Kaiser, Ph.D., and Gary ZeRuth, Ph.D., from the Laboratory of Respiratory Biology, mentored by Anton Jetton, Ph.D.
- Bonnie Joubert, Ph.D., from the Epidemiology Branch, mentored by Stephanie London, M.D., Dr.P.H.

Many awardees agreed that competing for the FARE award inspired them to critically evaluate the importance of their research, and how they can present their findings more effectively to a diverse audience.

"The FARE award allows young researchers to evaluate how their work will be received by other scientists, some of whom may work in different disciplines," Joubert noted. She thinks that winning the award gives fellows the confidence and encouragement to publish and present their research, and motivates them to further pursue their ideas.

"Attendance at national scientific meetings is an integral part of learning to be an interactive scientist," said NIEHS Deputy Scientific Director Bill Schrader, Ph.D. "In this time of tightened travel budgets, the FARE awards program is the best way for trainees to increase their participation at meetings in their specialty fields."

(Sheila Yong, Ph.D., is a visiting fellow in the NIEHS Laboratory of Signal Transduction.)

Visiting fellow Huaixin Dang, Ph.D., "TAK1/TR4 regulates cold induced thermogenesis by inhibiting CREB-PGC1a pathway," mentor Anton Jetten, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Neal Englert, Ph.D., "Epigenetic Modification of Histone (H3) and CYP2C9 Regulation: Involvement of Med25 as the Key Regulator," mentor Joyce Goldstein, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Bret Freudenthal, Ph.D., "The Polymerase Reaction Exposed: Observing a DNA Polymerase Choose Right from Wrong," mentor Samuel Wilson, M.D. (Photo courtesy of Steve McCaw)

IRTA fellow George Fromm, Ph.D., "Pausing of RNA Polymerase II Regulates Mammalian Developmental Potential," mentor Karen Adelman, Ph.D. (Photo courtesy of Steve McCaw)

Research fellow Bonnie Joubert, Ph.D., "Maternal smoking and DNA methylation in newborns: An in utero effect or epigenetic inheritance?" mentor Stephanie London, M.D., Dr.P.H. (Photo courtesy of Steve McCaw)

Visiting fellow Mahita Kadmiel, Ph.D., "Glucocorticoid receptor action at the interface with the environment," mentor John Cidlowski, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Nevzat Kazgan, Ph.D., "Intestine-specific deletion of SIRT1 alters systemic lipid and bile acid homeostasis in mice," mentor Xiaoling Li, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow YuanYuan Li, Ph.D., "T-KDE: A method for analyzing genome-wide protein binding patterns from ChIP-seq data," mentor Leping Li, Ph.D. (Photo courtesy of Steve McCaw)

Visiting fellow Ngome Makia, Ph.D., "Activator Protein 1 Regulation of Human CYP2C9 Expression by Electrophilic Stress Involves MAPK Activation and DNA Looping," mentor Joyce Goldstein, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Kristin Lichti-Kaiser, Ph.D., "Transcription Factor Glis3 Plays a Critical Role in the Development of Functional Pancreatic beta-cells and Diabetes," mentor Anton Jetten, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Stela Palii, Ph.D., "Combined disruption of ATM and CHK1 functionalities reveals redundancies in the DNA damage response pathways and results in synthetic growth inhibition following gamma-irradiation," mentor Richard Paules, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Sabrina Robertson, Ph.D., "Developmental origins of central norepinephrine neuron diversity," mentor Patricia Jensen, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Erica Ungewitter, Ph.D., "GLI-similar 3 Maintains Sexually Dimorphic Germ Cell Development in Mouse Embryos," mentor Humphrey Yao, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Lindsay Smith, Ph.D., "Glucocorticoid Receptor Regulation of P-glycoprotein at the Blood-Brain and Blood-Spinal Cord Barriers," mentor David Miller, Ph.D. (Photo courtesy of Steve McCaw)

Visiting fellow Qingshan Wang, M.D., "Endogenous substance P regulates microglial density in substantia nigra through neurokinin-1 receptor/NADPH oxidase axis-mediated chemotaxis," mentor Jau-Shyong (John) Hong, Ph.D. (Photo courtesy of Steve McCaw)

IRTA fellow Jeremy Weaver, Ph.D., "Kinetic evaluation of an inositol pyrophosphate kinase reveals its signaling credentials," mentor Stephen Shears, Ph.D. (Photo courtesy of Steve McCaw)

Research fellow Gary ZeRuth, Ph.D., "The Krüppel-like protein Gli-similar 3 (Glis3) functions as a key regulator of insulin transcription," mentor Anton Jetton, Ph.D. (Photo courtesy of Steve McCaw)

Winning on their first try

Of the first-time winners, several were also first-time applicants. Among them is Mahita Kadmiel, Ph.D., from LST, who had been at NIEHS for only a year at the time of her application. Though she did not feel that her abstract was competitive enough for a FARE award, she was grateful to her mentor, Cidlowski, who made sure all the trainees in his group applied for the award. "The fact that the abstracts get peer-reviewed in a blind study section makes this award more valuable to me," she noted.

Jeremy Weaver, Ph.D., another first-time applicant and awardee from LST, said that he and his mentor, Stephen Shears, Ph.D., went through seven drafts before submitting the final version of his abstract. "We tried to incorporate an introduction, the experimental procedures, our findings, and the significance of the research, while still obeying the character limit. It was challenging, but well worth the effort, because it helped me summarize my thoughts and ideas," he said.

First-time winner Erica Ungewitter, Ph.D., mentored by Humphrey Yao, Ph.D., of the Laboratory of Reproductive and Developmental Toxicology, had this to offer future FARE award applicants. "It appears that the section that you choose for judging can have a big impact on your chances of winning," she observed, adding that she and her labmates tried to select different sections to avoid competing against one another. This piece of advice may motivate future applicants to put more thought into preparing their abstracts and categorizing their research.

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